

II. REMARKS

Claims 1-48 are pending. Claims 1-18 and 40-48 have been withdrawn. Claims 19-39 stand rejected. In light of the following, all of the currently pending claims are in condition for allowance, and, therefore, the Applicants' attorney requests the Examiner to withdraw all of the outstanding rejections. But if after considering this response the Examiner does not allow all the claims, the Applicant's attorney requests that the Examiner contact him to schedule a teleconference to further the prosecution of the application.

Objection to the Drawings

The drawings stand objected to. FIGS. 1-4 have been amended, as shown in the replacement sheet submitted herewith, to include the legend "Prior Art" where appropriate.

Regarding the relationship between the drawings and claims 21 and 26-39, the Applicants' attorney respectfully submits that the Examiner misapprehends claimed structural limitations. For example, regarding claim 21, it is memory-cell terminals, and not active areas, that extend inside at least one recess. Additionally, in the embodiment recited in claim 26, the recess is claimed as being disposed over a portion of an active region of a substrate, not disposed in the substrate.

Accordingly, the Applicants' attorney respectfully submits that all claimed features are accurately shown in the drawings. The Examiner is thus asked to withdraw these objections.

Rejection of Claims 21 and 26-39 Under 35 U.S.C. § 112, Second Paragraph

For the reasons discussed above in connection with the objections to the drawings, the Examiner is respectfully requested to withdraw this rejection.

Rejection of Claims 19, 23-25, 34 and 37-38 Under 35 U.S.C. § 102(e) as Being Anticipated By Chen

Claim 19

Claim 19 recites a substrate and a plurality of insulation structures delimiting active areas and having respective portions projecting from the substrate, wherein the

insulation structures have respective recesses, which accommodate at least partially conductive regions.

For example, referring to FIGS. 10-12 and paragraphs 20-23 of the patent application, a semiconductor wafer 20 has a substrate 21. The substrate 21 is etched, and trenches 24 are opened, which delimit memory active areas 25 and circuitry active areas 26, where memory cells and, respectively, read/write circuits and control circuits will subsequently be formed. The active array areas 25 and circuitry-active areas 26 are delimited laterally by trench insulation structures 27, which extend in part inside the substrate 21 and have projecting portions 27a projecting at the top from the substrate 21. First and second recesses 32, 33 are formed inside the insulation structures 27, which delimit the memory active areas 25 and, respectively, the circuitry active areas 26. Residual polysilicon portions inside the second recesses 33, the cavities 34 and the third recesses 35 form, in the first case, resistors 40 and first plates 41a of capacitors, and in the other cases, floating gates 44a, 45a of high-performance memory cells and standard memory cells, respectively.

In contrast, Chen fails to teach or suggest insulation structures having respective recesses that accommodate at least partially conductive regions. For example, at, e.g., FIG. 1 and paragraph 12, Chen teaches a semiconductor chip 100 having a pair of trench isolation regions 102 (insulation structures) isolating a semiconductor device 104 (conductive region) from other semiconductor devices 104 (not shown). As can be seen in FIG. 1, the regions 102 do not have recesses that accommodate the device 104 or any other conductive region. Accordingly, Chen fails to teach or suggest the limitations of claim 19.

Claim 34

Claim 34 is patentable for reasons similar to those discussed in support of the patentability of claim 19.

Claims 23-25 and 37-38

Claims 23-25 and 37-38 are patentable by virtue of their respective dependencies from claims 19 and 34.

Rejection of Claims 19-22, 26-36 and 39 Under 35 U.S.C. § 102(e) as Being Anticipated By Chang

Claim 19

Chang fails to teach or suggest insulation structures having respective recesses that accommodate at least partially conductive regions. For example, at, e.g., FIG. 8 and paragraph 22, Chang teaches a substrate 200 within which are disposed trench isolation structures 208a. As can be seen in FIG. 8, the structures 208a do not have recesses that accommodate a conductive region. Accordingly, Chang fails to teach or suggest the limitations of claim 19.

Claims 26 and 34

Claims 26 and 34 are patentable for reasons similar to those discussed in support of the patentability of claim 19.

Claims 20-22, 27-33, 35-36 and 39

Claims 20-22, 27-33, 35-36 and 39 are patentable by virtue of their respective dependencies from claims 19, 26 and 34.

Conclusion

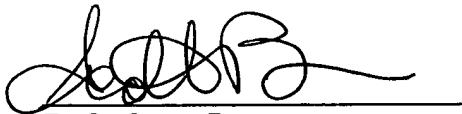
In light of the foregoing, claims 19-39 are in condition for full allowance, which is respectfully requested.

In the event additional fees are due as a result of this amendment, payment for those fees has been enclosed in the form of a check. Should further payment be required

to cover such fees you are hereby authorized to charge such payment to Deposit Account No. 07-1897.

DATED this 3rd Day of May, 2005.

Respectfully Submitted,



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